

SHORT COMMUNICATIONS

Oliarus leporinus (Linnaeus) (Hemiptera: Cixiidae) in Pembrokeshire and Carmarthenshire, with notes on its ecology.—*O. leporinus* is a southern species in Britain, and largely confined to saltmarshes. In the west, detailed published records extend only to the vicinity of the Bristol Channel. I have previously (Kirby, 1992) reported the occurrence of the species in Pembrokeshire and Carmarthenshire, but without details of the captures. Since these represent a considerably northward extension of its known range, it seems worthwhile to give more information on the circumstances in which the records were made.

I found *O. leporinus* in three localities in Pembrokeshire in 1990: Millin Cross (SM995137), 25.vi.1990; Picton (SN010122), 30.vi.90; Angle (SM866028), 1.vii.1990, 3.vii.1990. At Millin Cross a single specimen was found on the mud beneath a very narrow strip of saltmarsh vegetation along the margin of a small tidal stream. At Picton several adults were found by sweeping and a single nymph beneath a stone, in a small patch of saltmarsh along the Eastern Cleddau. The insect was abundant at Angle and could be swept in hundreds from a small but very varied area of saltmarsh at the western corner of Angle Bay. In Carmarthenshire, I captured *O. leporinus* at two localities in 1991: Pembrey Burrows (SS4399), 9.viii.1991; Machynys (SS17977), 10.vii.1991. I have previously identified a specimen of *O. leporinus* from Pembrey Burrows (SN427003), collected by Dr P. S. Hyman, 6.vii.1985.

Ossiannilsson (1978) gives the foodplants of *O. leporinus* as '*Phragmites* and other swamp grasses'. Supporting evidence in favour of these as foodplants seems rather slight, however. *Phragmites* is certainly not essential: it was absent from all the sites listed above, or at least from those parts of the sites where *O. leporinus* was captured. I have also seen *O. leporinus* in abundance in an Essex saltmarsh (Bradwell, TM0307, 27.vii.1986) where no *Phragmites* grew. Whitehead (1991) reported the insect breeding at the roots of scurvy-grass *Cochlearia danica* L. in Somerset.

The saltmarsh at Angle was interesting in that several of its most abundant plant species tended to grow in single-species patches. I was therefore able to sample, within a twenty metre radius, separate stands of *Aster tripolium* L., *Halimione portucaloides* (L.) Alley, *Juncus gerardii* Loisel, *Puccinellia* sp., *Scirpus maritimus* L., *Spartina* sp. and *Triglochin maritima* L., as well as an area of low mixed vegetation which included *Aster tripolium*, *Cochlearia* sp., *Halimione portucaloides*, *Juncus gerardii*, *Limonium vulgare* Miller, *Plantago maritima* L., *Puccinellia* sp. and *Triglochin maritima*. *O. leporinus* occurred in abundance only on *Halimione*. It was quite common in the area of mixed marsh vegetation, but in much lower numbers than in areas of pure *Halimione*. Several individuals were found on *Aster*, and singletons on *Scirpus* and *Puccinellia*. No *O. leporinus* were found in areas of *Juncus gerardii*, *Spartina* or *Triglochin maritima*, either by sweeping or by searching.

I would not wish to overstate the significance of these observations. They were made in the space of little more than an hour at a single site; they are not quantified; the relative numbers captured from the different plants will have been influenced by the structure of the plants as well as by the numbers of *O. leporinus* they contained, and the results could reflect only the plants preferred by the adults for resting, not those used for food. However, the very strong association between adult *O. leporinus* and *Halimione* was real enough, and *Halimione* seems as likely a foodplant as any present on the marsh. Unfortunately, despite the abundance of adult *O. leporinus*, no nymphs could be found in the limited time available, despite a search around all the common plants of the marsh. The single nymph captured at Picton was found beneath a stone around which grew several species of saltmarsh plants, whose roots

penetrated beneath the stone. The commonest plant in the immediate vicinity was *Cochlearia* sp., echoing Whitehead's finding. *Cochlearia* could not have been the foodplant at Angle, however, or at least not the only foodplant, since it was relatively scarce there and could not have supported the enormous population of the bug. Whatever the plant or plants used by the bug at Angle, it must have other foodplants on other sites, besides *Cochlearia*. There are a number of inland records from British sites which can have no plant species in common with a Pembrokeshire saltmarsh. Krogerus (1960) regarded *O. leporinus* as characteristic of poor sedge fens in Scandinavia.

As an incidental finding, it may be of some interest to note the other Auchenorrhyncha recorded in association with *O. leporinus* on the Angle saltmarsh, and their apparent plant preferences. They were: *Aphrodes aestuarinus* (Edwards), common amongst *Juncus gerardii*, frequent amongst *Puccinellia*, occasional amongst *Halimione portucaloides*, *Scirpus maritimus*, *Triglochin* and mixed marsh vegetation; *Aphrodes limicola* (Edwards), common amongst *Puccinellia*, frequent amongst *Juncus gerardii* and occasional amongst *Halimione portucaloides* and mixed marsh vegetation; *Macrosteles horvathi* (Wagner), frequent by sweeping *Puccinellia*, occasional from *Juncus gerardii*; *Paramesus obtusifrons* (Stal), confined to, and abundant on, *Scirpus maritimus*; *Psammotettix putoni* (Then), frequent on *Puccinellia*, occasional on *Juncus gerardii*.—P. Kirby, 49 Barnstock, Bretton, Peterborough, Cambridgeshire PE3 8EH.

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***Trigonocranus emmeae* Fieber (Hemiptera: Cixiidae) in Northamptonshire.**—I captured a single female of this species by sweeping tall but rather sparse grassland growing on the ballast of a disused mineral line at Brookfield Plantation, Northamptonshire (SP892923), 24.vii.1991. The six previous records of *T. emmeae* in Britain are widely scattered, from Lancashire, Yorkshire, Surrey and Kent (Kirby, 1992). The Northamptonshire site has certain features seen in other of this insect's known localities: bare ground; loose stones, and underlying limestone. Perhaps the most unusual feature of this record is the finding of this secretive and usually ground-dwelling or even subterranean insect sufficiently far above ground to be captured by use of a sweep net.—P. Kirby, 49 Barnstock, Bretton, Peterborough, Cambridgeshire PE3 8EH.

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- Kirby, P. 1992. *A review of the scarce and threatened Hemiptera of Great Britain*. Peterborough: Joint Nature Conservation Committee. (UK Nature Conservation, No. 2).

The extinction of a population of *Aphis mammulata* Gimmingham & Hille Ris Lambers (Hemiptera: Aphididae).—I reported the discovery of a population of *Aphis mammulata* Gimmingham & Hille Ris Lambers (McLean, 1988) as the second locality for this species in Britain. Following the publication of that note I kept the population at Cavenham NNR under surveillance and succeeded in photographing the aphids (which have dark grey females and orange males) being attended by *Lasius fuliginosus*